PATENT COOPERATION TREATY

REC'D 2 9 SEP 2005

WIPO   PCT

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference GB030045	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/EP2004/050907	International filing date *(day/month/year)* 28.05.2004		Priority date *(day/month/year)* 25.06.2003

International Patent Classification (IPC) or national classification and IPC

G01C21/36

Applicant

INTERNATIONAL BUSINESS MACHINES CORPORATION et al.

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

    a. ☒ *sent to the applicant and to the International Bureau)* a total of 3 sheets, as follows:

    ☒ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

    ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

    b. ☐ *(sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

    ☒ Box No. I   Basis of the opinion

    ☐ Box No. II   Priority

    ☐ Box No. III   Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

    ☐ Box No. IV   Lack of unity of invention

    ☒ Box No. V   Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

    ☐ Box No. VI   Certain documents cited

    ☐ Box No. VII   Certain defects in the international application

    ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 20.04.2005	Date of completion of this report 30.09.2005
Name and mailing address of the International preliminary examining authority: European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Hoekstra, F Telephone No. +31 70 340-3638

Box No. I   Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

   ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:

       ☐ international search (under Rules 12.3 and 23.1(b))
       ☐ publication of the international application (under Rule 12.4)
       ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

   Description, Pages

   1-11   as originally filed

   Claims, Numbers

   1-22   received on 20.04.2005 with letter of 19.04.2005

   Drawings, Sheets

   1/5-5/5   as originally filed

   ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:
       ☐ the description, pages
       ☐ the claims, Nos.
       ☐ the drawings, sheets/figs
       ☐ the sequence listing *(specify)*:
       ☐ any table(s) related to sequence listing *(specify)*:

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
       ☐ the description, pages
       ☐ the claims, Nos.
       ☐ the drawings, sheets/figs
       ☐ the sequence listing *(specify)*:
       ☐ any table(s) related to sequence listing *(specify)*:

     * *If item 4 applies, some or all of these sheets may be marked "superseded."*

Box No. V   Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-21
	No:	Claims	22
Inventive step (IS)	Yes:	Claims	1-21
	No:	Claims	22
Industrial applicability (IA)	Yes:	Claims	1-22
	No:	Claims	

2. Citations and explanations (Rule 70.7):

   see separate sheet

<u>Re Item V</u>
**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

Reference is made to the following document:

> D1: US-B-6 199 0141 (WALKER ET AL) 6 March 2001 (2001-03-06)

1   The present application does not meet the requirements of Article 33(1) PCT,
because the subject-matter of claim **22** is not novel in the sense of Article 33(2) PCT.
The reason for this is the following:

Novelty:

2.1 Document D1 discloses a computer program product with the same features as
independent claim **22** of the present application. In particular, D1 discloses a server
(D1, col. 5, II. 9-18, the central controller 101) which stores a plurality of images (col.
5, II. 18-29), each of which represents a geographic location. The server calculates a
route (col. 5, I. 61- col. 6, I. 2). More than one image is compilable to define a route
between locations (col. 9, II. 7- 10). The server has means for receiving a request and
means for sending a series of images to a receiving means of a mobile device (col. 8,
I. 62- col. 9, I. 2). The system and method are computer-implemented, which implies
the computer program product. Thus, all features of claim **22** are disclosed by D1 and
therefore, the subject-matter of this claim is not novel.

2.2 The preamble of independent claims **1** and **13** corresponds to the subject-matter of
D1 identified in 2.1 above. The subject-matter of these claims differs from the closest
prior art of D1 in the voting mechanism and method in which a user can vote on the
usefulness of an image and the server adapts the store of images in response to the
votes received. Therefore, the subject-matter of these claims is novel.

Inventive step:

3.1 The technical effect of the feature of claims **1** and **13**, mentioned under 2.2, is to provide a feedback mechanism which allows users to interact with the system. The technical problem to be solved is how to select the most useful images/data which depict a navigation route.

3.2 D1 does not disclose or suggest such a feedback mechanism, nor is such a mechanism disclosed or suggested by any of the documents mentioned on the International Search Report. Therefore, the subject-matter of claims **1** and **13** involves an inventive step.

3.3 Claims **2-12, 14-21** are dependent on claims **1** and **13** and as such also meet the requirements of the PCT with respect to novelty and inventive step.

GB030045   12   New Page: 19 April 2005

Claims

1.   A navigation system comprising: a server (10) having a store (15) of a plurality of images
(12), each image (12) representing a location and more than one image (12) being compilable to
define a route between locations; the server (10) having means for receiving a request and
means for sending a series of images (12) to a receiving means of a mobile device(14);
characterised in that wherein the server (10) further comprises a voting mechanism in which a
user can vote (52) on the usefulness of an image (12) and the server (10) adapts the store (15) of
images in response to votes received.

2.   A navigation system as claimed in claim 1, wherein the store (15) of images includes
more than one predefined route made up of a series of images (12), wherein a series of images
defines a route to a destination location or a circular route.

3.   A navigation system as claimed in claim 1 or claim 2, wherein the server (10) has a route
finding mechanism (13) for compiling a series of images to define the route.

4.   A navigation system as claimed in any one of claims 1 to 3, wherein the store (15) of the
plurality of images is keyed on the location of an image (12) or one location of a series of images
and a request specifies a location, wherein the server (10) includes a search mechanism (13) to
search for a requested location.

5.   A navigation system as claimed in any one of the preceding claims, wherein each image
(12) is a photograph, diagram or picture representing a location.

6.   A navigation system as claimed in any one of the preceding claims, wherein series of
images are provided in categories depending on a mode of transport of a user, the type of
location represented in the images (12) and the distance between the locations represented in
the images of the series.

7.   A navigation system as claimed in any one of the preceding claims, wherein a series of
images is sent (46) as a single packet to the mobile device (14).

8.   A navigation system as claimed in any one of claims 1 to 6, wherein a series of images is
sent piecemeal (51, 53) in more than one portion to the mobile device (14) in response to a
prompt from the mobile device (14) for the next portion of the series.

9.   A navigation system as claimed in any one of the preceding claims, wherein the means
for receiving the request recognises the type of device (14) making the request and sends the
series of images in a form suitable for the type of device (14).

10.   A navigation system as claimed in any one of the preceding claims, wherein the mobile
device (14) is a mobile telephone enabled with MMS messaging and the series of images is sent
as an MMS message to the mobile telephone.

AMENDED SHEET

11.   A navigation system as claimed in any one of the preceding claims, wherein the mobile device (14) includes a camera and an image of a location can be sent (54) from the mobile device to the server (10).

12.   A navigation system as claimed in any one of the preceding claims, wherein the server (10) includes means for receiving an image (12) and adding the image (12) to the store of images (15).

13.   A method of supplying navigation information comprising: obtaining and storing a plurality of images (12), each image (12) representing a location and more than one image being compilable to define a route between locations; receiving a request for navigation information; searching through the plurality of images (12) to obtain a series of images in accordance with the request; sending a series of images to a mobile device (14); characterised in that the method further comprises receiving and processing votes (52) on the usefulness of an image and amending the store (15) of images in accordance with the votes received.

14.   A method as claimed in claim 13, wherein the method comprises storing more than one predefined route made up of a series of images, wherein a series of images defines a route to a destination location or a circular route.

15.   A method as claimed in claim 13 or claim 14, wherein the method comprises compiling a series of images to define the route in response to a request.

16.   A method as claimed in any one of claims 13 to 15, wherein the method comprises keying the plurality of images (12) on the location of an image or one location of a series of images and the step of searching is carried out by location.

17.   A method as claimed in any one of claims 13 to 16, wherein the method comprises storing series of images in categories depending on a mode of transport of a user, the type of location represented in the images and the distance between the locations represented in the images (12).

18.   A method as claimed in any one of claims 13 to 17, wherein the step of sending a series of images sends (46) the images as a single packet.

19.   A method as claimed in any one of claims 13 to 17, wherein the step of sending a series of images sends the images piecemeal (51, 53) in more than one portion in response to received prompts for the next portion of the series of images.

20.   A method as claimed in any one of claims 13 to 19, wherein the method comprises recognising the type of device (14) sending a request and sending a series of images in a format to suit the type of device (14).

21.   A method as claimed in any one of claims 13 to 20, wherein the method comprises receiving a new image and adding the image to a series of images.

AMENDED SHEET

GB030045 14 New Page: 19 April 2005

22. A computer program product stored on a computer readable storage medium, comprising computer readable program code means for performing the steps of: obtaining and storing a plurality of images (12), each image representing a location and more than one image (12) being compilable to define a route between locations; receiving a request for navigation information; searching through the plurality of images (12) to obtain a series of images in accordance with the request; sending a series of images to a mobile device (14).

AMENDED SHEET